

## Tessellation 31 (R)

Stuite: Tessellation Party!

by Arya Akhavan (November 2013)

Angles for R.I. = 1.540

47 + 14 girdles = 61 facets

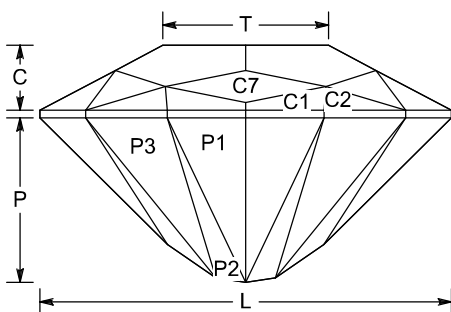
2-fold, mirror-image symmetry

80 index

L/W = 1.219 T/W = 0.491 U/W = 0.160

P/W = 0.486 C/W = 0.191

Vol./W<sup>3</sup> = 0.285



### PAVILION

P1	44.27°	01-39-41-79	Cut to centerpoint.
P2	43.50°	02-38-42-78	Meet at culet.
G1	90.00°	01-39-41-79	Set stone width.
G2	90.00°	08-32-48-72	Meet P1, P2, G1
P3	44.90°	08-32-48-72	Level girdle.
P4	44.01°	10-30-50-70	Meet P2, P3
P5	44.90°	12-28-52-68	Meet G2, P3, P4
P6	44.74°	20-60	Meet P4, P5
G3	90.00°	12-28-52-68	Level girdle.
G4	90.00°	20-60	Level girdle.

### CROWN

C1	39.34°	01-39-41-79	Set girdle width.
C2	46.42°	08-32-48-72	Level girdle.
C3	40.39°	12-28-52-68	Level girdle.
C4	27.73°	20-60	Level girdle.
C5	39.29°	09-31-49-71	Meet G2, G3, C2, C3
C6	18.00°	04-36-44-76	Meet C1, C2, C5; C3, C4, C5
C7	31.76°	80-40	Meet C1, C2, C5, C6
T	0.00°	Table	Meet C4, C6

Here's another experiment with pentagons! This one has a very interesting reflection pattern with all kinds of scattering. Notice how all of these pentagonal tilings have pentagons and rhombi that fit neatly between them? Works in materials from quartz to CZ (RI = 1.54 - 2.16) with no changes, but I prefer rich pink-flash amethyst.

Suggested length = 6-12 mm

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